

Running head: DAMAGE ASSESSMENT

Executive Analysis of Fire Service Operations in Emergency Management

Damage Assessment after Catastrophic Events in the Gainesville Community

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### CERTIFICATION STATEMENT

I hereby certify that this paper constitutes my own product, that where the language of others is set forth, quotation marks so indicate, and that appropriate credit is given where I have used the language, ideas, expressions, or writings of another.

Signed: \_\_\_\_\_

### Abstract

This research project addresses the problem that the City of Gainesville emergency plan does not address a process for damage assessment which has resulted in poor post incident response and recovery after catastrophic events.

The purpose of this research project was to assess the current Emergency Plan for the City of Gainesville and other jurisdictions and identify the best practices for making recommendations for improving the damage assessment process in the Gainesville community.

The descriptive research method was utilized with specific emphasis on a formal damage assessment process and its effect on post incident response.

The results of the project produced these recommendations:

1. The City of Gainesville should develop a formal damage assessment annex for the current emergency plan.
2. The City of Gainesville annex should mirror and complement the damage assessment process outlined in the Alachua County Emergency plan.
3. The City of Gainesville should establish a damage assessment team and provide the appropriate training for the team.

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## Introduction

Damage Assessment is the key to all post event mitigation efforts. The information gleaned from this process provides valuable tools for establishing incident priorities, a needs assessment, and resource allocation. This is an extremely vital link to the whole mitigation strategy of any post event emergency operations center or team. The City of Gainesville does not currently have a formal damage assessment process listed in its emergency plan. A damage assessment protocol ensures that trained competent personnel are assessing and identifying the needs of the victims, the current situation as it relates to infrastructure damage and providing critical information for emergency decision makers. The damage assessment is also utilized to determine the need for, and type of, county, state and federal disaster assistance to ensure the City's needs are met.

The purpose of this research had two objectives. The first objective was to assess what mechanism or protocol exists that allows the City of Gainesville to operate and perform damage assessment during critical events. The second objective was to seek out what assessment tools other jurisdictions are utilizing, identify the best practices and make recommendations for establishing an efficient, cost effective method for accomplishing damage assessment that will meet the needs of the Gainesville community. The following research questions were utilized to evaluate this problem:

1. Is a formal damage assessment plan needed for the Gainesville Community?
2. What are the sources and contributing factors other public agencies are experiencing specifically related to damage assessment?
3. What types of damage assessment were used during the last catastrophic event in the Gainesville community? Other communities?

4. How is damage assessment information utilized by the Alachua County Department of Emergency Management?
5. What is the level of service currently being provided by the City of Gainesville after a catastrophic event?
6. Could the level of service provided by the City of Gainesville after a catastrophic event be improved with the addition of a formal damage assessment process?
7. How will the damage assessment process information be used to improve the level of service provided by the City of Gainesville?

The descriptive research method was utilized to describe the data collected as it related to damage assessment after catastrophic events in the Gainesville community and other similar communities. A literature review, a City of Gainesville document review, a survey and interviews with key personnel were utilized to identify the key elements.

### Background and Significance

The City of Gainesville is a mid range suburban community covering approximately 55 square miles and it has 117,000 citizens. The city is located in Alachua County in the State of Florida. In 2004, 2005 the City of Gainesville was involved in several catastrophic events (i.e., hurricanes, tornados) that had a significant impact on the day- to- day operations of the City.

During the post- incident review of the emergency and post- emergency operations, a duplication of efforts and inconsistency of information gathering were identified as key elements that resulted in uncoordinated efforts of the fire, police and public works department during these events. Further review of the emergency plan revealed that there was only a statement that implied a damage assessment should be done. There was no mention of a plan, procedure or training process mentioned on how to accomplish the task. The procedures for conducting

immediate and post- incident damage assessment should be a part of disaster plans formulated by agencies that normally would be involved in these activities as stated in the National Fire Academy, Executive Analysis of Fire Service Operations in Emergency Management (EAFSOEM, 2005). A key to success that was mentioned in the (EAFSOEM, 2005) text is that all chief officers who are assigned to an Incident Management Team should be able to conduct a damage assessment.

This research project supports the first operational objective of the U.S. Fire Administration by identifying areas that can help reduce the loss of life by improving the ability to respond and perform a damage assessment in an organized, effective and proactive manner (NFA, 2002, p.11-2). This project also supports the State of Florida Comprehensive Emergency Management Plan purpose statement, objectives one through five.

#### Literature Review

A literature review was conducted to analyze the existing body of knowledge as it related to damage assessment after catastrophic events. The initial review revealed a wealth of information that related to the subject. The review included trade journals, Federal Emergency Management Agency [FEMA] publications, fire service journals; Executive Fire Officer [EFO] applied research projects, National Fire Academy [NFA] textbooks and a total of thirty emergency plans.

In an effort to answer research question number one, a review of the City of Gainesville emergency plan revealed that there was no plan for damage assessment and no reference to the Alachua County Plan which did have a damage assessment plan. The State of Florida Emergency Plan by authority of Florida statutes chapter 252.35 (a) is required to address minor, major and catastrophic events. A minor event is defined as an event which can be handled by local governments with minimal need for state or federal assistance. A major disaster is an event that

exceeds the local jurisdiction capabilities and requires a broad range of state and federal assistance. The Federal Emergency Management Agency [FEMA] will provide predominantly recovery- oriented assistance. A catastrophic disaster is characterized by its need for massive state and federal assistance, including immediate military involvement. Federal assistance will involve response as well as recovery needs per the Florida Comprehensive Emergency Management Plan (FCEMP, D. p. 8).

A strategy mentioned in several plans as useful for immediate damage assessment was the windshield survey. The windshield survey as defined by Strickland (1998) is a drive by assessment performed by trained personnel where large areas of damage have occurred. Damage assessment is the key to effective mass disaster mitigation (Barrett, 2005). John Vollmer (2004) stated that the biggest problem encountered during initial damage assessment is that local jurisdictions have not developed a plan or procedure for collecting, documenting, and collating the data so that it can be transferred to the appropriate entity.

The National Fire Protection Association (NFPA) Standard 1600 defines damage assessment as an appraisal or determination of the effects of a disaster on human, physical, economic, and natural resources. The decisions that direct emergency response efforts require answers to geography based questions such as “Where has the most damage occurred? Where is the fire heading? Where is the nearest unit that can respond to this incident?” Mapping makes complex information instantly comprehensible in a way not possible with text or tables. The utilization of a Geographic Information Service is revolutionizing the way governments and other agencies manage emergencies (Jouhnson, 2001). In the Best Practices: Mutual Aid & Damage Assessment in Disaster Response, there was a lot of discussion about who was responsible for damage assessment and how it was completed during the latest Florida Hurricanes. The



consensus of the group was that the task of damage assessment was overwhelming for the communities alone and that a coordinated response of trained personnel was needed to adequately complete the job (Koutnik, 2004). This information provides background and definitions to answer research question two.

The emergency plans were reviewed to identify the best practices utilized by other agencies as they related to a formal damage assessment process. The City of Tampa, Florida created an Emergency Service Function (ESF) 19 which was responsible for all damage assessment within the confines of the City of Tampa. The City of Los Angeles created a Damage Assessment Annex which states that the information collected by the damage assessment is critically important to the EOC director and city decision makers. The director of East Baton Rouge Parish Office of Homeland Security and Emergency Preparedness, along with a damage assessment officer, will be responsible for the development and maintenance of the Damage Assessment Annex (EBRP, Annex K) and programs. The Connecticut Emergency Operations Plan (CEOP, Annex K,K3) Preliminary Damage Assessments (PDA) must be conducted in accordance with, and as required by, federal regulations (44CFR, part 206,Section 206.35) prior to gubernatorial request for a presidential disaster or emergency declaration under the Stafford Act(2005). The Robert T. Stafford Disaster Relief and Emergency Assistance Act (the Stafford Act) authorizes the President to issue major disaster or emergency declarations in response to catastrophes that overwhelm state and local governments. Such declarations result in the distribution of a wide range of federal aid to individuals and families, certain nonprofit organizations, and public agencies. The urban wild land fire problem has created a need for documentation and standardize information gathering. (Cole, Ewell & Ferguson, 1993). The standardization of reports in a consistent manner ensures consistent data collection (Howe, 1998). The utilization of

standardized forms increases the quality of collected information (Escoe, 2001). All of the above information was utilized to answer research questions two and three.

The Executive Analysis of Fire Service Operations in Emergency management [EAFSOEM] text (2005, pg 6-3) refers to types of damage assessment as being essential elements of every emergency plan: both immediate and post- incident. The text also gives the definition of damage assessment as a gathering of information related to the impact of an event, or series of events, on life and property within a defined area (EAFSOEM,2005, p.6-3). It is important to mention that the term damage assessment is utilized by other disciplines as a post incident disaster inspection which is a detailed report performed on structures which utilizes engineering techniques to determine structural integrity and should not be confused with damage assessment performed by emergency personnel (McDowell , McEntire, 2002). The utilization of FEMA forms ensures accurate documentation for recovery and reimbursement of expended funds for public agencies (Jacobson, 1998).

In the Alachua County Standard Operating Guideline for Damage Assessment (ACSOGDA, 2003) damage assessment information is a vital link to the county situation report (CSR). The CSR provides vital information about the type of incident, number of dead or injured, general impact to the county's infrastructure, and the status of local response efforts. (ACSOGDA, 2003 p.4). The Alachua County Damage plan also included damage assessment units, teams and team leaders as part of the annex to the County Emergency Plan. Yearly training and exercises are provided for the teams which include inspectors and code enforcement personnel.

During an interview with Rick Wolf who is the designated damage assessment officer for Alachua County, he stated that the current damage assessment program had an excellent track record and provided critical information during the last storm (Wolfe, personal communication,

February 6, 2007). The Federal Guide for all Hazard Emergency Operations Planning states that each state emergency operations plan must provide a provision for obtaining initial situation assessment information from the local jurisdictions that have been impacted by the disaster (FEMA, 1999). The definition of immediate damage assessment is the act of conducting a survey to determine the immediate response requirements (Plantiz, 1999).

During an interview with Alice Rankeillor, the Local Mitigation Strategy Coordinator for the City of Gainesville, she stated that the City of Gainesville Public Works Department had a plan to clear streets and roadways utilizing (GPS) coordinates and maps (Rankeillor, personal communication, February 08, 2007). The use of Global Information Systems (GIS) in the public sector to perform damage assessment is a vital link to success (Johnson, 2001). “The City of Gainesville is prone to secondary hurricane damage, tornados and flooding and experienced a need for a formal damage assessment process during the last hurricane season” stated William Northcutt, Fire Chief for the City of Gainesville (Northcutt, personal communication, August 21, 2006).

According to Jim Garrett, City of Gainesville Codes Enforcement Manager, during the last storm the codes enforcement folks provided damage assessment information gathering along with the building department officials. The Gainesville team had no formal training and utilized copied FEMA forms to document the information they were gathering. The information, however, was never communicated to the City Emergency Operations Center or the Alachua County Emergency Operations Center. The mitigation efforts and strategic planning was accomplished without the benefit of the vital information that was being collected by the assessment team. No formal process or training was utilized by the team. (Garrett, personal communication, February 07, 2007). The flow of information in an Emergency Operations

center must be guided through a formal process to be effective (Neal, 2003). The utilization of a standardized form ensures reliable feedback data no matter who collects the information.

(Nadler, 1977). The above information directly answers research question four through seven.

The damage assessment process is the vital link to successful incident management following a large scale emergency. The literature review is explicit in reinforcing the fact that an organized, systematic approach to assessment and information gathering should be completed by trained, exercised individuals. The process should also include documentation and communication components that are compatible with county, state, and federal guidelines. The incorporation of a damage assessment protocol was the key element identified in the research that ensured successful post- incident mitigation, documentation and state and federal assistance.

### Procedures

The purpose of this research project was to assess the current damage assessment plan for the City of Gainesville and other jurisdictions and identify the best practices for making recommendations for improving damage assessment in the Gainesville community. The process utilized in collating this research began with an extensive literature review that was conducted to analyze the existing body of knowledge as it related to damage assessment after catastrophic events. The initial review revealed a wealth of information that related to the subject. The review included trade journals, Federal Emergency Management Agency (FEMA) publications, fire service journals, Executive Fire Officer [EFO] applied research projects, National Fire Academy [NFA] textbooks and a total of thirty emergency plans were reviewed to identify the best practices utilized by other agencies as they related to a formal damage assessment process.

The EAFSOEM manual and discussions with classmates and instructors were utilized during the research. The use of the keywords *emergency management damage assessment* produced a plethora of information from the Learning Resource Center and subsequent internet searches. A key element utilized in this project that assisted with the answering of the seven research questions was a survey that was distributed through the Florida Fire Chiefs website that produced valuable insights as to what types of damage assessment protocol are being utilized by municipalities in Florida. The survey was sent out to 2200 members with 15 responses returned. A chart (Appendix A) is included here with all fifteen responses to the seven question survey. The primary objective of this survey was to determine what kind of damage assessment process was being utilized by other similar departments with the same potential and types of catastrophic events as the City of Gainesville. A secondary objective of the survey was to identify information and the best practices that are currently being used as they relate to damage assessment.

To determine the effectiveness of the current policy and make comment on past performance, several interviews were completed with key personnel within the City of Gainesville and the Alachua County Emergency Management Office. These interviews were arranged two to three weeks in advance via phone call request made to each individual. The phone message explained the reason for the interview request (i.e., the ARP related to damage assessment protocols, and previous events), the 30 to 60-minute time frame for the interview, and the confidentiality of the interview results. Suggested dates and times were provided in the telephone message to help make the scheduling process easier for both the author and the interviewee. The time, date, and location of each interview were set at the convenience of the subject expert. Once the date, time, and location for each interview were established, an e-mail message was sent to the interviewee

to confirm the appointment and to thank the participant in advance for his/her support of the research. The following interviews were completed to gain insight into the current operations and the success or failure of past operations as they pertained to the damage assessment process in the City of Gainesville.

1. Jim Garrett Interview, Codes Enforcement Manager, Phone Interview, Gainesville, FL September 20, 2006 at 1500 hours.
2. William Northcutt Interview, Fire Chief, Fire Chiefs Office Gainesville Fire Rescue Administration, Gainesville FL September 20, 2006 at 1300 hours.
3. Alice Rankeillor Interview, Local Mitigation Strategy Coordinator, Reichart House, Gainesville, FL February 08, 2007 at 1330 hours.
4. Rick Wolfe Interview, Damage Assessment Officer, Alachua County, Phone Interview, Gainesville, FL February 06, 2007 at 1500 hours

The smaller than expected percentage of responses from the survey had a statistical impact on the accuracy of data collected in relation to the sample departments. The survey was sent out to 2200 members of the Florida Fire Chiefs Association and only fifteen responses were received back. This low number of responses was attributed to the survey being a low priority on a long list of very busy folks.

Another limiting factor of this project proved to be the large number of plans that needed to be analyzed just on their written content with no information on true performance during an emergency event. Some performance information was filtered through the survey questions four, seven, and eight. It is the opinion of this author that a second survey was needed to evaluate the effectiveness of the written plans.

Research question number two was found to be ambiguous and open for broad interpretation as to the actual information that the question required. Any future research should delete this question or it should be modified to ask for more specific information.

## Results

The following research questions were utilized to evaluate this problem:

1. Is a formal damage assessment plan needed for the Gainesville Community?

A damage assessment is the essential information gathering process during the post- incident phase of an emergency incident (EAFSOEM, 2005 p. 6). The Federal Emergency Management agency [FEMA] requires damage assessments to be completed to assist with recovery efforts and reimbursements for expenditures. Interviews with key personnel who were involved in the last hurricane season in the Gainesville community agreed that a formal damage assessment process was needed to improve the performance of the City of Gainesville emergency response team. In an effort to answer research question number one a review of the City of Gainesville Emergency Plan revealed that there was no plan for damage assessment and no reference to the Alachua County Plan, which did have a damage assessment plan. The State of Florida Emergency Plan, by authority of Florida Statutes Chapter 252.35 (a), is required to address minor, major and catastrophic events. A minor event is defined as an event which can be handled by local governments with minimal need for state or federal assistance. A major disaster is an event that exceeds the local jurisdiction capabilities and requires a broad range of state and federal assistance. The Federal Emergency Management Agency will provide predominantly recovery oriented assistance. A catastrophic disaster is characterized by its need for massive state and federal assistance, including immediate military involvement.

Federal assistance will involve response as well as recovery needs per the Florida Comprehensive Emergency Management Plan (FCEMP, D. p. 8).

The Executive Analysis of Fire Service Operations in Emergency management [EAFSOEM] text (2005, pg 6-3) refers to types of damage assessment as being essential elements of every emergency plan: both Immediate and post incident. The text also gives the definition of damage assessment as a gathering of information related to the impact of an event, or series of events, on life and property within a defined area (EAFSOEM, 2005p.6-3). It is important to mention that the term damage assessment is utilized by other disciplines as a post- incident disaster inspection which is a detailed report on performed on structures which utilizes engineering techniques to determine structural integrity and should not be confused with damage assessment performed by emergency personnel (McEntire, 2002,).

In the Alachua County Standard Operating Guideline for Damage Assessment (ACSOGDA), damage assessment information is a vital link to the county situation report (CSR). The CSR provides vital information about the type of incident, number of dead or injured general impact to the county's infrastructure and the status of local response efforts. (ACSOGDA, 2006). The plan also included damage assessment units, teams, and team leaders as part of the annex to the County Emergency Plan. It also provided guidelines for yearly training and exercises for the teams which include inspectors and code enforcement personnel.

During an interview with Rick Wolf who is the designated Damage Assessment Officer for Alachua county, he stated that the current program had an excellent track record and provided critical information during the last storm (Wolfe, personal communication, February 6,2007) According to The Federal Guide for All Hazard Emergency Operations Planning, each state



Emergency Operations Plan (EOP) must provide a provision for obtaining initial situation assessment information from the local jurisdictions that have been impacted by the disaster.

2. What are the sources and contributing factors other public agencies are experiencing specifically related to damage assessment?

The research that has been written on this subject confirms the need for a standardized damage assessment process that can be duplicated and documented at every level of the operation. The utilization of such a process ensures the success of the Emergency Operations Center and decision makers in the assessment, mitigation, and recovery phases of the operation. A clear picture of what has happened, who is affected and what can be done to fix the problem is information that must be accurate and concise to formulate an effective Incident Action Plan.

This information is also valuable for calculating resource needs and logistical support.

Agencies that have a clear damage assessment process outlined in their plan have a much more successful operational period and can produce the required documentation post event when funds and reimbursements are applied for from the state and federal level. The other key element to the process is trained personnel.

The National Fire Protection Association (NFPA) Standard 1600 defines damage assessment as an appraisal or determination of the effects of a disaster on human, physical, economic, and natural resources. The decisions that direct emergency response efforts require answers to geography based questions such as “Where has the most damage occurred? Where is the fire heading? Where is the nearest unit that can respond to this incident? Mapping makes complex information instantly comprehensible in a way not possible with text or tables. The utilization of a Geographic Information Service is revolutionizing the way governments and other agencies manage emergencies (Johnsun, 2001).

In the Best Practices: Mutual Aid & Damage Assessment in Disaster Response, there was a lot of discussion about who was responsible for damage assessment and how it was completed during the latest Florida Hurricanes. The consensus of the group was that the task of damage assessment was overwhelming for the communities alone and that a coordinated response of trained personnel was needed to adequately complete the job.

3. What types of damage assessment were used during the last catastrophic event in the Gainesville community? Other communities?

The Gainesville community utilized a team of code enforcement and building inspectors to accomplish the damage assessment process. According to Jim Garrett, City of Gainesville Codes Enforcement Manager, during the last storm in Gainesville the codes enforcement folks provided damage assessment information gathering along with the building department officials. The team had no formal training and utilized copied FEMA forms to document the information they were gathering. The information however was never communicated to the City Emergency Operations Center or the Alachua County Emergency Operations Center. The mitigation efforts and strategic planning was accomplished without the benefit of the vital information that was being collected by the assessment team. It should be noted that the teams performed an outstanding job considering the adversity of which they were operating.

The emergency plans that were reviewed identified the best practices utilized by other agencies as they related to a formal damage assessment process. The City of Tampa, Florida created an Emergency Service Function (ESF) 19 which was responsible for all damage assessment within the confines of the City of Tampa. The City of Los Angeles created a Damage Assessment Annex which states that the information collected by the damage assessment is critically important to the EOC director and city decision makers. The director of East Baton

Rouge Parish (EBRP) Office of Homeland Security and Emergency Preparedness, along with a damage assessment officer, will be responsible for the development and maintenance of the Damage Assessment Annex (EBRP, Annex K) and programs. The Connecticut Emergency Operations plan (CEOP, Annex K) Preliminary Damage Assessments (PDA) must be conducted in accordance with, and as required by, Federal regulations (44CFR, part 206 ,Section 206.35) prior to gubernatorial request for a Presidential disaster or emergency declaration under the Stafford Act.

4. How is damage assessment information utilized by the Alachua County Department of emergency management?

Damage assessment is the process undertaken by representatives of Alachua County to gather information for the following purposes; to identify the needs of victims; to describe and document the type, extent and location of damages for emergency decision making purposes at all levels of government; to establish disaster recovery priorities and the type and quantity of resources and personnel required during recovery; and, to determine the need for, and type of state and federal disaster assistance to ensure the county's short and long term needs are met.

During an interview with Rick Wolf who is the designated Damage Assessment Officer for Alachua County, he stated that the current program had an excellent track record and provided protocol information that would create a standardized response based on initial information and damage assessment by trained teams who would then pass on critical information during a storm (Wolfe, 2006).

Initial Impact Assessment information is used to support data input to the County Situation Report (CRT). The County Situation Report is a prescribed form which is used by the County immediately following a disaster to describe information gathered during the Initial Impact

Assessment process including: the type of incident, extent, and location of damages; the number of dead and injured; the general impact of the disaster on the County's infrastructure; and, the status of local response efforts. The County Situation Report also gives the County the means to summarize detailed damage assessment data in both the private and public sectors.

Initial Damage Assessments are conducted to provide quantified estimates of damages and are performed following in conjunction with the County's Initial Impact Assessment. The three Initial Damage Assessment Report forms document damages to affected housing units, local industry and businesses, and public facilities. The County Damage Assessment Officer (DAO) is responsible for supervising the County's damage assessment process to include pre-emergency planning, mobilization of personnel and resources, deployment of damage assessment teams into the field, compiling county-wide damage assessment information, and preparing required Initial Damage Assessment Reports. The County Damage Assessment Officer serves in the County Emergency Operations Center (EOC) when activated, and reports to the County Emergency Manager or other County executive if so directed. In Alachua County, the County (DAO) is Rick Wolf, Director of Codes Enforcement, and Carol Hurst, Building Codes Supervisor is the alternate (DAO).

The County Damage Assessment Unit is comprised of trained damage assessors, data input operators, communications personnel and others assigned to the County (EOC), or other facility, when directed, in support of the (DAO) Officers.

The County Damage Assessment Teams (DAT) are comprised of trained personnel operating in the field who visibly inspect damaged and destroyed structures and other facilities, gather information for the County Situation Report, complete the Initial Damage Assessment forms, and operate at the direction of the County

Damage Assessment Officer and Damage Assessment Unit. The County ( DAT) members are able to evaluate both public and private sector damages as well as to conduct infrastructure assessments independent of, or in support of State Initial Impact Assessment Teams. The County Damage Assessment Team Leaders are pre-selected county employees who have been trained in damage assessment methods and procedures and who will lead the County's damage assessment teams in the fields.

The Alachua County Concept of Operations for Damage Assessment encompasses the following criteria: The County Damage Assessment Officer, in consultation with the Emergency Manager, will identify sources of economic, tax, and cost estimating information likely to be needed for damage assessment purposes, as well as identify methods to access that information immediately following a disaster.

The Damage Assessment Teams will meet on a bi-annual basis in February (spring severe weather) and August (mid-hurricane season). Additionally, the teams will meet for pre-deployment briefings and post-recovery after action sessions.

Alachua County will directly conduct damage assessment activities for all unincorporated areas within the County. Additionally, the County will conduct joint damage assessments with each of the municipalities as required. Non-impacted jurisdictions may be required to render assistance to impacted jurisdictions.

The Alachua County damage assessment process is activated by the Emergency Manager or designee, will contact by telephone or by pager the County Damage Assessment Officer or alternate, advising them of the situation and to request that the County Damage Assessment Officer either fully, or partially mobilize the County's Damage Assessment Teams, or to place them on standby status. The term "fully activated" implies that all County Damage Assessment

Teams have been mobilized and members have reported to the County EOC, or other facility if so directed; are fully equipped to perform damage assessment duties; and have been briefed by the County Damage Assessment Officer. For tropical weather events, briefings, issuing of equipment and sector deployment should occur before the impact of 40-mph winds. The term “partially activated” implies that only selected County damage assessment teams have been activated and ordered to report for damage assessment duties. The term “standby status” implies that all or parts of the County’s damage assessment teams have been advised that the need for damage assessment is imminent. Once the County’s damage assessment process has been activated, and as soon as possible following the disaster’s impact, an Initial Impact Assessment of the affected areas will be completed by the County Damage Assessment Team members.

The purpose of the County’s Initial Impact Assessment is to quickly evaluate the County’s infrastructure in order to determine whether an effective response by County resources can be mounted and sustained; and to quickly determine whether victim needs can be met with internal resources within the County or will require state and possibly, federal assistance. The results of the County’s Initial Impact Assessment will be transmitted by radio, telephone or by hand to the County Damage Assessment Unit for compilation and inclusion into the County’s overall County Situation Report. During the County’s Initial Impact Assessment, assessment team members will note any obviously unsafe structures or facilities, tag or otherwise mark these structures, and report them to the County Damage Assessment Unit for transmittal to the appropriate county or municipal building inspections agencies. Damages to certain pre-determined critical facilities will also be noted during the Initial Impact Assessment and included in the team’s report to the County’s Damage Assessment Unit. Teams will be directed to survey

Critical Facilities by the Damage Assessment Officer or Emergency Management. The Damage Assessment Plan (DAP) contains the Alachua County Critical Facilities Inventory.

Once the information is compiled by members of the Damage Assessment Unit, the County's Initial Impact Assessment information will be filed with the local government personnel. As soon as possible thereafter, the Emergency Manager, in consultation with members of the County's emergency response team (ERT) and the County Damage Assessment Officer, will prepare and file the County Situation Report with the Florida Division of Emergency Management (FDEM) in Tallahassee. Data transmission will be by satellite, email or facsimile machine to the State Warning Point (SWP), Florida Division of Emergency Management. The Emergency Manager will evaluate the need for further damage assessment and the point in time when it will be safe to resume the damage assessment process. The Emergency Manager will notify the County Damage Assessment Officer to proceed.

The County Damage Assessment Officer can utilize existing resources, mobilize additional county damage assessment teams, or should the situation warrant, de-mobilize the damage assessment teams at this time. Damage Assessment Teams are composed of at least two individuals trained in the methods and procedures for damage assessment and are selected based upon their interests, training, expertise and availability. A list of currently assigned County Damage Assessment Team members along with their fields of expertise is provided in the Damage Assessment Plan. A roster of other available county and municipal personnel and their corresponding fields of expertise can be found in the Damage Assessment Plan. Both the SOP and Plan are to be reviewed and updated annually. The County's Damage Assessment Teams will be assigned to conduct damage assessment by the County Damage Assessment Officer by following a Plot on an appropriate

county tax map the known geographical limits of the disaster's impact using the Initial Impact Assessment information and other field reports from the law enforcement and fire rescue personnel. The team will overlay the entire disaster stricken area with an appropriately labeled grid or quadrant system. They will assign teams according to "quadrant contents", i.e. public or private sector damage assessment teams. Quadrants with both public and private sector damages will be noted with "quadrant contents" assigned to specific damage assessment teams as needed. Damage Assessment Team members are briefed by the Emergency Manager and the County Damage Assessment Officer on the suspected areas of impact, purposes of the assessments and any anticipated concerns. Team members are equipped with essential equipment, supplies and transportation prior to deployment. Attachment Three lists the equipment and supplies needed to conduct damage assessments under most conditions.

Damage Assessment Teams will be deployed to areas thought to be the most severely impacted and later to areas of lesser impact. Structures deemed uninhabitable or otherwise unsafe will be tagged and the location of such structures transmitted to the Damage Assessment Unit for referral to the proper authorities.

Damage Assessment Teams will continue inspection of designated critical facilities upon arrival in the area. The Damage Assessment Team Leader will contact by radio or telephone the County's Damage Assessment Unit upon the team's arrival in the designated area and when ready to begin damage assessment. Public Sector damage assessment team members will record their findings on the Initial Damage Assessment – Public Assistance form, in accord with the accompanying instructions. The Team Leaders will communicate with Damage Assessment Unit members, advising them of their progress and findings. A copy of the Initial Damage Assessment will be completed by the team. The Public Assistance form, designated as



Form A by the Florida Division of Emergency Management (FDEM) is prepared by the (DAM ) unit. Private Sector damage assessment team members will record their findings on the Initial Damage Assessment – Housing Losses form and the Initial Damage Assessment – Business Losses form. Initial Damage Assessment for Housing Losses are recorded on Form B by the (DAM) (FDEM). The Initial Damage Assessment – Business Losses form is designated as Form C (FDEM). Private Sector damage assessment team members conducting damage assessments specifically to determine economic injury will utilize the Small Business Administration (SBA) Economic Injury Survey Report, they will coordinate directly with personnel from the (FDEM) in completing the survey. The Damage Assessment Team members will continue to assess damages until completed or until the County Damage Assessment Officer asks that the team quit and return to the County EOC or other designated site, or relocate to another quadrant or area to continue damage assessment.

The Damage Assessment Unit will also document all damage assessment related expenses incurred by the County as a result of the disaster, and will notify municipalities conducting their own damage assessments to do the same. This information was gleaned from the Alachua County Damage Assessment Annex (ACDAA) and from (Wolfe, personal communication, February 6, 2007).

5. What is the level of service currently being provided by the City of Gainesville after a catastrophic event? “The City of Gainesville is prone to secondary hurricane damage, tornados and flooding and experienced a need for a formal damage assessment process during the last hurricane season” stated William Northcutt, Fire Chief for the City of Gainesville Fire department (Northcutt, personal communication, September 7<sup>th</sup>, 2006). The current emergency plan identified the need for a damage assessment process to occur, but made no reference to who

or how it was to be accomplished or how the information was to be communicated to the incident management team and the County Emergency Operations Center. The level of service that was provided to its citizens during the last storm was considered adequate for the amount of resources and manpower that were available (Northcutt, personal communication, September 7<sup>th</sup>, 2006).

6. Could the level of service provided by the City of Gainesville after a catastrophic event be improved with the addition of a formal damage assessment process? To answer this research question the responses from the survey and personal interviews were utilized: The damage assessment process will provide more accurate measurable information. It will improve the overall response capability and identify Incident Action Plan capabilities. It will enable the providers to provide a quicker more accurate response to the areas that have the greatest need (Garrett, personal communication, February 07, 2007). The resounding response too this survey question was that yes, a damage assessment process will improve the response and coordinate activities among all the providers and jurisdictions. The National Fire Protection Association (NFPA) Standard 1600 defines damage assessment as an appraisal or determination of the effects of a disaster on human, physical, economic and natural resources. The decisions that direct emergency response efforts require answers to geography based questions such as “Where has the most damage occurred? Where is the fire heading? Where is the nearest unit that can respond to this incident? This information can be obtained from a damage assessment process.

7. .How will the damage assessment process information be used to improve the level of service provided by the City of Gainesville? The addition of a formal damage assessment will enhance the operation of the incident management team during strategic planning, incident action plan development and resource allocation. The information will also be collected to

provide (FEMA) with information for reimbursement of local funds and resources. In the Alachua County Damage Assessment Annex (ACDAA) damage assessment information is a vital link to the county situation report (CSR) improving and streamlining the Emergency Services Function Five of the City plan and providing up to date information through the web (EOC) with compatible data and resource allocation requests. Preliminary Damage Assessments (PDA) must be conducted in accordance with, and as required by, Federal regulations (44CFR, part 206, Section 206.35) prior to gubernatorial request for a Presidential disaster or emergency declaration under the Stafford Act.

A survey entitled Damage Assessment (Appendix B) was utilized to answer these questions.

1. Is a formal damage assessment utilized in your community? The most prevalent answer to question one was a resounding yes, most agreed that a formal damage assessment process was necessary to provide optimum service and comply with federal and state mandates. The breakdown on the survey was 26% no and 74% yes (Appendix A). The scope of the answers and solutions were varied from jurisdiction to jurisdiction with a definite disconnect between municipalities and county emergency management activities concerning damage assessment and how it was accomplished.

Some of the answers included a rescue search and grid program (Martin Co. Florida). Our Fire district has not employed such an assessment but our county plan does have a tool. (Collier County Fire Dept) It is contained in the County Emergency plan and is found in the Fire Department hurricane plan. No formal plan needed for this process,, crews use a windshield survey to collect damage assessment information. Jacksonville Beach Fire Rescue utilizes a “Snapshot” form to accomplish initial damage assessment (Appendix C). The Manatee County

Comprehensive Emergency Plan lists the responsibilities of a formal damage assessment process (Appendix D).

2. What are the causes/ sources and contributing factors your community has experienced that specifically necessitated a damage assessment?

The most popular response to this question was hurricanes, tornados and flooding resulting in a need for a damage assessment. The geography of a specific locale and the hazards that come with it were the key factors affecting the response of this question. When the survey was given to someone on the west coast, they responded with earthquakes, floods, mudslides, and wildfires. The hazards may change, but the need to gather information and formulate an incident action plan remains a constant factor in successful mitigation of these large scale incidents.

3. What types of damage assessment forms and/or procedures were used during the last catastrophic event in your community? Other communities of which you may be aware?

The answers to these questions validate the need for a standardized approach or system for damage assessment information gathering to be effective, measurable and reproducible. While some jurisdictions use the FEMA form others do not use any form. Here are some examples of the responses from the survey:

Form A	Public Property Preliminary Damage Assessment Estimate
Form B	Public Property Preliminary Damage Assessment Summary
Form C	Preliminary Housing Damage Assessment Estimate
Form D	Preliminary Business/Industry Damage Assessment Record
Form F	Final Report of Localized Peacetime Emergency

Internal “Windshield Damage Assessment” forms were used to perform initial size up information. Some respondents have utilized the FEMA form; however, this is not needed unless you are teaming with FEMA to determine eligibility for aid. The FEMA form is very complicated and time-consuming. Do not utilize this as your primary form for damage assessment. The information is recorded on 8.5" x 11" note pads and then transcribed to the FEMA forms.

We used FEMA logs to account for staffing, equipment hours, damaged equipment, and consumable supplies. Respondents also used field survey forms of their own design. Another respondent utilized forms to coincide with the use of the National Grid System.

The Rapid Initial Assessment (RIA) is performed throughout the county. This process of assessment is a mainstay in unincorporated areas and municipalities. We utilize a search and rescue grid program that was developed to do a quick look at our County after an event. The County has been cut into grids per response zone and we have cards that crews fill out. Those cards are then turned over to Emergency Management to use for Federal Emergency Management Agency (FEMA) issues then our Building and Zoning personnel use them for a more definitive damage assessment.

Damage scores 0-4 were used for (RIA) in Volusia County and were scored by the building official and his staff. All municipalities use the (RIA) 0-4 damage score model. In addition, such events require FEMA 214 personnel accountability and task forms for submittal.

This past year we just developed a rapid damage assessment form used by the initial teams (police, fire, utilities); the formal damage assessment uses a form developed by the planning development department as well as the county forms.

4. How is damage assessment information utilized by your department/division of

emergency management? The damage assessment could be utilized to develop Incident Action Plans, determine community needs, direct resources, communicate to the public about current conditions, and anticipated needs. The information would also be utilized in obtaining funds from FEMA for recovery operations. This vital information should guide all mitigation and recovery efforts creating a triage system to get the resources on hand to the areas or circumstances with the most devastation /and or need for recovery efforts.

The City of Gainesville EOC and the Alachua County EOC work together to determine what resources are needed where and to prioritize those needs. The City provides the resources it has to meet those needs. The County procures and provides any resources the City doesn't have available.

5. What is the level of service currently provided by your community/fire department after a catastrophic event? Respondents reported the following configurations of service levels during pre and post large scale events. All apparatus, including reserve apparatus and utility vehicles, are manned with four personnel. Each vehicle provides (ALS) non-transport medical care. Each team includes a company officer, at least one paramedic and three emergency medical technicians. A Hazardous Materials Technician and at least one Technical Rescue Technician/Florida Urban Search and Rescue team member are making up the damage assessment team. The survey had a vast array of answers with no explanation about how the policy or procedure was developed or validated. Each jurisdiction had a different response.

Priority deployment of resources only was noted. Emergency response (life threatening EMS incidents only) Search and Rescue efforts and damage assessment were the only functions that were utilized. There was no normal EMS or Fire response during the event and only limited FD response post event, No alarms or goodwill calls during emergency operations were allowed.

Response to confirmed fires and life threatening emergencies were the only incidents that were responded to until after the emergency period. All Advanced Life Support was modified pre-event to Basic Life support for all initial responses. Units responded to hazard recovery and mitigation efforts only during the emergency period. Initial Basic Life Support, that progressed to Advanced Life Support after the emergency period was also found to be effective. Command and (EOC) functions only until the event passed, No Emergency response until after the event, Search and rescue operations with damage assessment and windshield surveys will be the business of the day. A “No Call too Small” philosophy which included debris removal, tarp application, Advanced Life Support and Basic Life Support response was also listed as a best practice.

6. Could the level of service provided by your community/fire department after a catastrophic event be improved with the addition of a formal damage assessment process? The damage process will provide more accurate measurable information. It will improve the overall response capability and identify Incident Action Plan capabilities. It will enable the providers to provide a quicker more accurate response to the areas with the greatest need. The resounding response too this survey question was that yes, it will improve the response and coordinate activities among all providers and jurisdictions.

7. How will the damage assessment process information be used to improve the level of service provided by your community/fire department? The information will create a standardized response based on initial information and damage assessment by trained teams, these teams pass on the information to the incident management team for strategic planning and incident action plan development and resource allocation. The information will also be collected to provide (FEMA) with information for reimbursement of local funds and resources

## Discussion

The first research question reflects the current practices of the City of Gainesville as they pertain to the damage assessment process. The research indicated that a formal damage assessment process is not only needed: it is necessary to meet the public expectation of an emergency response after a catastrophic event. The information gleaned from the damage assessment process is the vital link to completing incident action plans and making critical decisions about resource needs and allocation. After reviewing the current City of Gainesville emergency plan, a damage assessment was identified, however there was no information for how it was to be done or who was responsible for completing it. The other plans that were reviewed revealed a wide array of damage assessment annexes and procedures with no real thread of consistency or standardization of how the damage assessment process should be done to optimize the efficiency and confirm the accuracy of the collected information. The “who” does it and who is responsible was also another missing link, this author found everything from public works , community affairs, law enforcement, codes enforcement, fire rescue and even a streets division crew that were being utilized for damage assessment teams and street clearers. The training of these “Damage Assessment Teams” was also varied and inconsistent from jurisdiction to jurisdiction. The real issue is that the federal government needs to standardize the damage assessment process and include the how, who, what, where and when so that the process will be standardized in all jurisdiction.

The second question explored the sources of damage assessment criteria and problems associated with damage assessment operations during past events. During the review of over thirty emergency plans the most prevalent finding was that almost every plan mentioned the need for damage assessment, but there were very few with procedures or annexes identifying how or



who would perform the function. The actual plans that had a procedure or annex were usually homegrown programs with area specific jargon and no specific criteria for the type of information gathered and how it would be utilized in the emergency and post emergency mode of operation. The plans that had particularly good damage assessment plans with all the required components were usually annexes that were specific about the type of data and the specifics of how it was collected and disseminated to the appropriate entity. An interesting observation that was documented by question number two of the damage assessment survey was that most responses were directly correlated to the type of incident that was prevalent to that particular geography. The hazards may change, but the need to gather information and formulate an incident action plan remains a constant factor in successful mitigation of large scale incident.

In the Gainesville community no damage assessment process was utilized during the last two hurricane events. A make- shift team including members from public works, and the building department made an attempt to complete some early damage assessment resulting in little or no information feedback to the city emergency operations center. The result was no information feedback to the planning section for development of the Incident Action Plan (IAP) or other strategic planning efforts including resource allocation through the county web (EOC). This breakdown slowed the city recovery level and reduced the quality and quantity of service to its citizens during and in the post event phase of the operations. The utilization of a formal damage assessment process would have provided a roadmap to make the operation more efficient and provided a valuable planning and evaluation tool for the command staff at the city emergency operations center (EOC) with enhanced communication with the county (EOC). The Alachua County damage assessment annex was an extremely well written document that had made provisions for damage assessment of the Gainesville community along with other municipalities.

The annex is not included as part of the City of Gainesville comprehensive plan and to date has not been reviewed by the city emergency management personnel. The plan should be accessible to all parties along with a rigorous training program, followed by a series of exercises to be an effective tool. The City of Gainesville emergency plan should include the annex components and damage assessment process that has been outlined and adopted in the county. This would ensure consistency in the type of information that is collected and the methods of documentation. The level of service provided by the City of Gainesville after a catastrophic event would be improved with the addition of a formal damage assessment process. The utilization and implementation of a comprehensive damage assessment process will provide the citizens of Gainesville with an effective tool which will synergize the Incident Management team of the City of Gainesville Emergency Operations Center and improve the level and quality of service it can provide during and after a large incident. The information and documentation product of the process will aid in the recovery and reimbursement funds from county, state, and federal pools of money. The Federal Emergency Management Agency requires damage assessments to be completed to assist with recovery efforts and reimbursements for expenditures. Interviews with key personnel who were involved in the last hurricane season in the Gainesville community agreed that a formal damage assessment process was necessary to improve the performance of the City of Gainesville. The incorporation of a damage assessment protocol was the key element identified in the research that ensured successful post incident mitigation, documentation and state and federal assistance.

### Recommendations

The damage assessment protocol is essential to the modern day incident command structure providing a vital link to reality from perception. This objective tool will provide the essential

information needed to make quantifiable strategic decisions resulting in quality service to our citizens. The incorporation of this process into the City of Gainesville Emergency Plan is the missing element to possessing a premier plan of operation for a catastrophic event.

The results of the project confirmed the need to include a formal damage assessment process in the current City of Gainesville emergency plan with these recommendations:

1. The City of Gainesville should develop a formal damage assessment annex for the current emergency plan.
4. The City of Gainesville annex should mirror and complement the damage assessment process outlined in the Alachua County Emergency plan.
5. The City of Gainesville should establish a damage assessment team and provide the appropriate training for the team.

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## APPENDIX A

Response #	Ques. #1	Ques. #2	Ques. #3	Ques. #4	Ques. #5	Ques. #6	Ques. #7
1	yes	hurricane	RIA	Priority deployment	no non emergency response	yes	Accurate timely info
2	no	hurricane	n/a	n/a	emergency only	yes	Response capability\IAP
3	no	hurricane	SR Grid	Develop and plan	search/ fire suppression	yes	Develop AAR
4	no	Qualification of disaster assistance	paper tablet	Forward to county EOC	recon/ welfare checks	yes	Quick response
5	yes	windshield survey	windshield damage assessment	FEMA requirement	FD limited	no	n/a
6	yes	tornado	Field summary form	Information to public	ALS modification	yes	Identify needed resources
7	no	tornado wildfire	Internal rapid assessment	Deploy resources	Hazard Recognition mitigation	yes	Improve overall operation
8	yes	tornado	RIA	Guide multi hazard strategy	Search/ Rescue Tree removal	no	Improve community support
9	yes	hurricane flooding	Rapid damage assessment homegrown	EOC information	Community service	yes	IAP development
10	yes	tornado	RIA	Resource deployment	BLS only Modified ALS	yes	Identify most vulnerable areas
11	yes	hurricane	Internal computer generated	Reporting to FEMA	n/a	yes	n/a
12	yes	hurricane	Building department team form	EOC/multi hazard	Incident Command Recon EOC functions	n/a	Determine needs for the incident
13	yes	hurricane	County forms	FEMA requirement	Search Rescue Damage assessment	yes	IAP development Already in place
14	yes	Hurricane tornado	FEMA/standard forms	Response and recovery	No job to small Blue tarp Debris removal	yes	FEMA registration/IAP
15	yes	tornado wildfire	Zones system	Mitigation strategy	Fire Rescue only	n/a	Better preplanning All hazards approach

## APPENDIX B

### *Survey of local Fire departments and Emergency Managers: Community Damage Assessment*

**Survey: Please answer the following questions concerning your damage assessment procedures after catastrophic events.**

1. Is a formal damage assessment plan utilized in your community?
2. What are the causes/sources and contributing factors your community has experienced that specifically necessitated a damage assessment?
3. What types of damage assessment forms and /or procedures were used during the last catastrophic event that impacted your community? Other communities of which you may be aware?
4. How is damage assessment information utilized by your departments/division of emergency management?
5. What is the level of service currently being provided by your community/fire department after a catastrophic event?
6. Could the level of service provided by your community/fire department after a catastrophic event be improved with the addition of a formal damage assessment process?
7. How would damage assessment data be used to improve the level of service provided by your community/fire department?

Thank you in advance for your help with this project.

## APPENDIX C

**JAX BEACH RAPID DAMAGE ASSESSMENT**

A rapid damage assessment is a quick snapshot of the damage to the city which is used in planning resources needed to mitigate the disaster. The recon teams will look at a variety of factors in each of the zones. The rapid assessment is completed by the preliminary recon team and results reported back to the ICS command post within a 4 hour time frame.

**Location (Zone):** \_\_\_\_\_ **Damage Assessment Team** \_\_\_\_\_

**Date/Time:** \_\_\_\_\_

**Rapid Damage Assessment Scoring System**

(Rate from 0-4 in each of the key areas)

- 0- No damage**
- 1- Minor**
- 2- Moderate**
- 3- Severe**
- 4- Catastrophic**

**Life Safety (victims)** \_\_\_\_\_ **estimated #** \_\_\_\_

**General Structural Damage** \_\_\_\_\_

**City Facilities** \_\_\_\_\_

**Flooding** \_\_\_\_\_

**Roadways** \_\_\_\_\_

**Debris** \_\_\_\_\_

**Infrastructure:**

- Power available yes \_\_ no \_\_
- Water available (potable) yes \_\_ no \_\_
- Sewer yes \_\_ no \_\_

**Communication:**

- 800 MHz Radio system yes \_\_ no \_\_
- Telephone available yes \_\_ no \_\_
- Cell Phones available yes \_\_ no \_\_

**Location for Command Post:** \_\_\_\_\_

**Notes:** \_\_\_\_\_

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## APPENDIX D

### Manatee County CEMP

#### Annex II Recovery & Mitigation

##### 1. General Recovery Functions

A Recovery Operations Center (ROC) will be established to manage, coordinate, control, and direct the recovery efforts following a major event and will be situation dependant upon Continuity of Operations Plans that may have been implemented.

The center will be established and manned by representatives from each ESF, liaisons from each municipality, and other agencies involved in the recovery process. The ROC will be organized along the same lines of responsibility as the

state and federal response and recovery systems.

At the onset of an activation of the Manatee County Emergency Operations Center (EOC), EOC Command will appoint a Recovery Coordinator. The Recovery Coordinator will begin forward planning for, and transition to, the recovery phase and the ROC.

Recovery phase will focus on the following types of activities:

- x Initiating Preliminary Damage Assessment (airborne and ground) and Initial Damage Assessment.
- x Debris Management and restoration of utilities and infrastructure
- x Establishment of an inter-county recovery network designed to provide the support for movement of response actions, relief supplies and services into the county.
- x Public Assistance, Community Relations and Long-term Unmet Needs including the allocation and administration of the distribution of emergency supplies including food, water, ice, and medications.
- x Establishment and support of Disaster Recovery Centers.
- x Managing post-event sheltering operations.

Manatee County Emergency Management has primary responsibility for coordinating recovery efforts, requesting resources, and relief supplies and support. This function will be performed from the EOC until directed by the County Administrator and/or Director of Public Safety to move to the ROC.

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## Manatee County CEMP

### Annex II Recovery & Mitigation

1.2 The Emergency Management Chief is responsible for the overall coordination and establishment of a Recovery Center for the affected area and will appoint the following as appropriate:

- x A coordinator/liaison to the local Disaster Field Office (DFO)
- x A coordinator/liaison with the state recovery staff to assist in the establishment of the Disaster Recovery Center.

1.3 The Emergency Management Chief is responsible for the support of the State of Florida Rapid Impact Assessment Teams (RIATs). The Chief has appointed the Operations Officer from Emergency Management to coordinate required activities.

1.4 Individual ESFs in the EOC and ROC will coordinate with their state counterparts during recovery operations.

1.5 The Coordinator for ESF-14 is the Emergency Public Information Officer (PIO) and is responsible for providing public information and education programs regarding the recovery effort and available local, state and federal assistance. (See ESF-14 Annex for established procedures)

1.6 Municipalities will provide liaison to the ROC to coordinate recovery activities.

## 2. Damage Assessment

Manatee County Emergency Management is the lead agency for Damage Assessment. MCEM provides training to Damage Assessment Team members

and coordinates the deployment of teams, data collection, and data transmittal to FDEM and FEMA.

Damage Assessment can be conducted through a number of different methods that can be utilized depending on the situation, these include:

Aerial Reconnaissance- This survey will be implemented using fixed-wing and rotary aircraft to access a large area or because access to the disaster affected area is blocked.

Windshield Survey- This process is used to access quickly the extent of the damage in a relatively short amount of time. This type of assessment involves damage assessments team driving around the disaster-affected area to record the number of homes and business damaged or destroyed.

Walk-through- This method is the most thorough method of assessing damages. It will involve the use of damage assessment teams walking through disaster-  
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Manatee County CEMP

#### Annex II Recovery & Mitigation

affected areas and categorizing damages to homes and businesses. This type of assessment is critical before a Federal disaster declaration can be implemented.

#### 2.1 Initial Damage Assessment (IDA)

2.1.1 Immediately after the impact of a major disaster, an assessment of damages will be conducted. Initial Damage Assessment (IDA) includes both human needs of the affected population and damage to property - individual, business and public infrastructures. This will assist in determining the need for federal disaster assistance. A Request for Public Assistance Form will be submitted along with

the preliminary damage assessment report. After evaluation of the preliminary damage assessment from the County, the Florida Division of Emergency Management (FDEM) will make Recommendations to the Governor on the advisability of requesting a Federal Declaration of Emergency or Disaster from the President.

2.1.2 EOC Operations may recommend to EOC Command that Damage Assessment Teams (DAT) activate to perform an IDA of damaged and prioritized areas. Teams may be pre-deployed in anticipation of a major event or may be deployed immediately after an event, when safety permits. EOC Operations will contact Manatee County Property Appraisers Office, Building Department, American Red Cross and other appropriate agencies, and instruct them to assemble personnel to staff the DAT's. EOC Operations may activate, brief and deploy additional DAT's as the situation warrants and personnel are available.

2.1.3 See the Initial Damage Assessment Standard Operating Procedure (SOP) for the process of activation, assignment, deployment and operation of Initial Damage Assessment (IDA) Teams to efficiently and as accurately as possible document damage to Manatee County.

2.1.4 Municipalities are responsible for the preliminary damage assessment within their jurisdiction. If unable to perform the function due to impact of the disaster, a decision will be made by the Policy Group to conduct the damage assessment within that jurisdiction by other jurisdictional teams.

2.1.5 The Manatee County Chamber of Commerce will assess economic injury in Manatee County. The Chamber will coordinate business damage assessment and report it's information to the Manatee County EOC.

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Manatee County CEMP

Annex II Recovery & Mitigation

## 2.2 Preliminary Damage Assessment (PDA)

2.2.1 A joint Preliminary Damage Assessment may be initiated with the Federal Emergency Management Agency (FEMA), Florida Department of Emergency Management (FDEM) and Manatee County Emergency Management to verify the severity and magnitude of damage in order to justify the need to pursue a request for federal assistance.

2.2.2 EOC Command and Operations will be responsible for coordination of the PDA process.

2.2.3 IDA data will be used to structure the joint Preliminary Damage Assessment (PDA) with FEMA and FDEM.

## 3. Debris Management

3.1 Debris Management is coordinated by ESF3 in the Manatee County Emergency Operations Center. Manatee County Transportation is responsible for emergency clearance of debris from county roadways. Manatee County Utility Operations Department is responsible for the operation of the Manatee County Landfill, planning of temporary debris staging sites, and debris removal from water treatment and sewer system facilities. Manatee County Utilities Customer Service maintains contracts with vendors for debris removal and management of debris operations. MCUCS is also responsible for coordinating initial debris estimates.

3.2 Additional details are found in the detailed SOG's of the departments.

## 4. Disaster Field Office (DFO)

4.1 When a federal disaster declaration is issued, key federal and state recovery officials will establish and co-locate at a Disaster Field Office (DFO). In choosing the DFO location, officials attempt to select a site that

is as close to the affected areas as possible, but is removed from the immediate disaster zone. This is done to avoid placing an additional burden on the area's already strained infrastructure and social system. The DFO serves as the hub for the coordination of federal and state disaster assistance as well as a focal point for associated recovery and reconstruction issues. Many critical post-disaster concerns, particularly in a catastrophic event, cannot be directly resolved by the application of traditional federal disaster relief. Resolution of these issues requires a coordinated local, state and federal effort and often involves application of non-disaster community assistance programs.